

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number (Optional)

50277-2334

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on \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Application Number

10/783,779

Filed

02/20/2004

First Named Inventor

Yu Gong

Art Unit

2166

Examiner

Elijah Stone Harper

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒ attorney or agent of record. 42327  
Registration number \_\_\_\_\_

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

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Telephone number

July 25, 2011

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 1 forms are submitted.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Confirmation No.: 6676

Yu Gong

Examiner: Elijah Stone Harper

Serial No.: 10/783,779

Group Art Unit No.: 2166

Filed: February 20, 2004

For: MODULARIZED EXTRACTION,  
TRANSFORMATION, AND LOADING  
FOR A DATABASE

**EFS-Web**

Commissioner for Patents  
Alexandria, VA 22313-1450

**PRE-APPEAL BRIEF CONFERENCE REQUEST ATTACHMENT**

The following is provided for understanding the claims. Various features of various claims are described for purposes of exposition, but not for the purpose of arguing any single claim that expresses or requires that feature. The limitations of any particular claim, and distinguishing features thereof, are explained later.

The claimed ETL system is comprised of a source database, a source ETL application, a module, a target ETL application, and a target database. The source ETL application generates the module that comprises metadata that describes the structure of database objects to be transported from the source database to the target database. The metadata in the generated module is based on source database metadata. As a result of reading the module, the target ETL application:

1. modifies ETL application metadata
2. modifies target database metadata
3. incorporates into the target database a copy of the source database tablespaces that store the data to be transported.

Kornelson describes a system for reading log files and loading the data into a database. Kornelson is directed to generating, from a dataflow diagram, an ETL application, metafile, and installation script for installing the generated application and metafile. The

Examiner analogized Kornelson's installation script to the claimed module because the Examiner interprets the installation script to modify the ETL application metadata. Even if it were reasonable to interpret Kornelson's installation script as modifying ETL application metadata, Kornelson's installation script does not cause a target ETL application to perform the other functions described above such as modifying target database metadata or incorporating tablespaces into the target database. Thus, the installation script cannot be considered equivalent to the claimed module.

Kornelson's application, metafile, and installation script are generated prior to moving data from log files into the target database. Kornelson describes a single ETL application, not a source ETL application and a target ETL application. Even if Kornelson's application could be considered analogous to the claimed source ETL application, Kornelson's application does not cause a module to be generated, as claimed.

In addition to these fundamental distinctions, there are several specific features of the claims that are not taught by Kornelson in combination with Thomson:

1. Kornelson does not teach or suggest modifying target database metadata.
2. Kornelson does not teach or suggest incorporating tablespaces; fact and dimension tables are not tablespaces.
3. Kornelson does not mention any metadata that defines tablespaces.

These distinctions are explained more fully below.

**1. Kornelson does not teach or suggest modifying target database metadata.**

The Examiner relies on Kornelson at col. 8, lines 20-35 to allegedly teach modifying said target database metadata based on said metadata read from said module to describe a structure of said one or more database objects of said source database. However, the claims recite that the modifying is performed by said target ETL application. The Examiner appears to equate Kornelson's ETL toolset that is used to generate the ETL application with the ETL application itself. This is not correct. The ETL toolset creates the ETL application and the ETL application performs extraction, transformation, and loading of the data. Furthermore, neither the ETL toolset, nor the generated ETL application modifies **target database metadata** to describe a structure of database objects of said source database.

Although Kornelson may place the log file data in fact and dimension tables that are merged with tables already in the target database, the table merge process does not

modify the **structure** of the tables within the target database. Unlike the Examiner alleges, merging data does not inherently change the data's structure.

Kornelson's aggregation computer that prepares the source data for loading into the target database creates fact and dimension tables based on the target database structure that already exists. Thus, there is no need to modify target database metadata to describe the structure of database objects from the source database.

**2. Kornelson does not teach or suggest incorporating tablespaces; fact and dimension tables are not tablespaces.**

The Office Action relies on the passage at Column 7, lines 5-35 of Kornelsen to allegedly teach the feature of incorporating tablespaces. The cited passage describes the creation of fact files and dimension files that are constructed from data extracted from the log files. However, there is no teaching or suggestion in the cited passage or anywhere else in Kornelson of tablespaces, much less source metadata that identifies tablespaces.

The claims recite tablespaces, and the Examiner alleges that Kornelson teaches tablespaces. That is factually incorrect. The Examiner does not provide any further explanation as to how and whether Kornelson or Thomson teach tablespaces, and thus, the above Examiner response is not responsive to Applicants' arguments.

In addition, as noted above, the Examiner considers the source database to be the same as a log file. Thus, to consistently interpret the claim, the Examiner must also consider the source database metadata to be data about the log file. Information **about** the log file is not contained within the log file itself. There is no teaching or suggestion that the format of the logged data is self-describing. Thus, the metadata about the log file must be configured outside of the log file. There is also no teaching or suggestion that metadata about the log file identifies a tablespace, as claimed. Even if it were reasonable to consider a log file to be the same as a tablespace, the log file [tablespace] is not in a format that is understandable by the target database, as claimed. Kornelson's system **transforms** the data read from the log file into database tables. The data read from the log file only becomes understandable to the target system after its format has been transformed. If the data in the log file [tablespace] were already understandable to the target database, there would be no need to perform a transformation on the data.

The cited passage also describes the construction of fact tables and dimension tables in the target data warehouse database, but the fact tables and dimension tables neither

identify nor comprise a set of tablespaces. Even if fact tables and dimension tables identified tablespaces, fact tables and dimension tables [source database metadata] do not contain data about the log file [source database]. Likewise, even if it were reasonable to consider a fact table or dimension table to be the same as a tablespace, neither a fact nor a dimension table comprises data to be transported. Kornelson's fact and dimension table may be an intermediate representation of the data during transport, but they do not store database objects **to be transported**, as claimed. A person of ordinary skill in the art would have interpreted "data to be transported in an ETL system" to mean the source of the data to be moved from one database system to another. In Kornelson, the source data is the data from the log files, not the data in the fact or dimension tables.

Thomson does not, nor is it alleged to, teach tablespaces. There is no mention of tablespaces in Thomson, nor is there any other equivalent structure in Thomson that teaches or suggests tablespaces.

In response, the Examiner alleges that for obviousness the test is what combined teachings of references would have suggested to those of ordinary skill in the art.":

However, to establish prima facie obviousness of a claimed invention, **all the claim limitations must be taught or suggested by the prior art.** *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Obviousness under 35 U.S.C. § 103(a) is ultimately a legal question, **based on underlying factual determinations.** *See Richardson-Vicks Inc. v. Upjohn Co.*, 122 F.3d 1476, 1479 (Fed. Cir. 1997). The factual determinations underpinning the legal conclusion of obviousness include 1) the scope and content of the prior art, 2) the level of ordinary skill in the art, 3) the differences between the claimed invention and the prior art, and 4) evidence of secondary factors, also known as objective indicia of non-obviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). In the present matter, the Examiner has made clearly erroneous factual findings regarding the scope and content of the prior art, and in particular, what certain cited prior art references teach. Therefore, the Examiner's analysis and the obviousness rejection based thereon are invalid.

### **3. Kornelson does not mention any metadata that defines tablespaces.**

The Examiner relies on column 12, lines 1-15 to allegedly teach metadata that defines tablespaces. However, the cited passage is part of a general description of a computing environment in which Kornelson's approach may be used. There is no mention in the

cited passage of target databases, tablespaces, target database metadata or any equivalent element thereof.

The Examiner has alleged

*"In this case **metadata is simply data about data** and almost all of the data used in either reference would classify as metadata. Moreover the disclosure of Kornelson clearly indicate incorporating and storing multiple copies...."*

Even if Kornelson and Thomson describe data that may be considered metadata, neither reference describes metadata that defines tablespaces used to store database objects in the database, as claimed. As explained above, neither Kornelson nor Thomson teaches or suggests tablespaces, and thus, neither reference teaches or suggests metadata that defines tablespaces to store database objects. The above quoted Examiner response alleges that Kornelson suggests incorporating and storing multiple copies of some unnamed item, but does not explain how incorporating and storing multiple copies of some unnamed item teaches target database metadata that defines tablespaces for storing database objects.

Applicant has identified several features of Claims 100 and 116 that are not taught or suggested by Kornelson and Thomson, alone or in combination.

#### **Claims 108 and 124**

Claims 108 and 124 recite features that are very similar to those argued above for Claims 100 and 116.

Respectfully submitted,

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